



Regional Action Plan for Energy Storage and Sector Coupling Südburgenland, Austria

Version Final

A stream of cooperation



The CSSC Lab project summary

The CSSC LAB project is being funded within the third call of the INTERREG DANUBE TRANSNATIONAL Programme of the European Commission, under the specific objective SO 3.2: Improve energy security and energy efficiency. It aims to contribute to the energy security and energy efficiency of the region by supporting the development of joint regional storage and distribution solutions and strategies for increasing energy efficiency and renewable energy usage.

The CSSC project targets medium-sized and smaller target cities in the Danube area, aiming to accelerate the up-take of energy storage and sector coupling solutions. To build up the capacities of municipalities and related city actors to assess, define and implement concrete implementation projects, the CSSC Lab project will:

- develop a set of model solution for typical urban CSSC use cases, together with a toolkit for the assessment of potential CSSC applications in terms of energy efficiency indicators, operational requirements, related business models and financing solutions
- a comprehensive capacity building programme for municipalities with local basic and advanced trainings, complementary webinars and individual city coaching sessions will be developed and piloted
- pilot investments will be established in four demo-centers in different locations in the project region to demonstrate the feasibility and performance of typical CSSC solutions
- a series of study visits and demo sessions will allow city representatives from all parts of the project region to learn from practical demo-cases implemented under Danube region framework conditions.

About this document

This document is part of OT.1 within T1.1 of the CSSC Lab project and will contribute to SO3. This document was prepared by ConPlusUltra in cooperation with regional partners and Alba Local Energy Agency - ALEA – work package lead partner.

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1. General Information

Country:	Austria
Region:	Südburgenland (NUTS AT113)
Responsible partner(s):	CPU, EK, SO

2. Aim of the Regional Action Plan

The aim of the action plan is to increase the installation and use of distributed renewable energy sources (mainly PV), storage systems and sector coupling solutions by promoting the adaptation of Renewable Energy Communities.

3. CHAPTER 1: European, national, and regional context

National context:

The legal framework for RES, sector coupling and storage technologies, as well as the public funding schemes for these technologies is laid forth in the Austrian Renewables Development Act (EAG, Erneuerbaren Ausbaugesetz) from July 2021. It sets Austria's decarbonization path with the goal to reach climate neutrality by 2040.

PV is the distributed RES of choice with a considerably budgeted public funding pool and is expected to be widely adopted by private households, municipalities, and SME. Development of wind turbines is expected to take place mostly in the shape of big, commercial investments rather than by distributed regional installations.

Public funding of storage technologies is also laid down in the EAG.

Public grants are available for PV (ranging from 170 – 285 €/kWp) and battery storages (200 €/kWh).

Li-Ion battery storages in the electricity sector and hot/cold water storages in the heat sector are widely installed currently. Heat pumps are seeing a huge surge in popularity as well as E-mobility.

Regional Context for Südburgenland, Austria:

The aim of the action plan is to increase the installation and use of distributed renewable energy sources (mainly PV), storage systems and

sector coupling solutions by promoting the adaption of Renewable Energy Communities.

PV is the preferred renewable source, as the region has only miniscule hydropower potential and wind turbines are difficult to install due to regulatory hurdles (they are not considered in the regional land use plan). Biomass is another RES that will be promoted in the RAP going forward. Financing of RES investments will be promoted by using the new organization form of Renewable Energy Communities, thus having a legal framework for communal investments. In addition to the public grant scheme of the EAG, Renewable Energy Communities can generate financial incentives for its participants and will be an important vehicle to finance storage and sector coupling solutions. The forming of REC allows for regional renewable energy systems to be developed and aggregated energy management systems and flexibility utilization to be taken advantage of and thus adding additional incentives to participate in these Energy Communities.

4. CHAPTER 2: Engagement of decision makers and other key stakeholders in the region

Regional Approach

The municipalities of the region are part of the Innovation Lab act4.energy, a living lab initiative hosted by the project partner Energie Kompass. As such a good level of cooperation in developing the region towards a regional, renewable energy system has been already established with close ties to the mayors and municipal representatives of the region.

Stakeholders

For the regional action plan in Austria, several stakeholder groups have been identified:

- Mayors and municipal representatives
- Communal services and associations
- Regional small and medium enterprises
- Private citizens

As the legal basis for Renewable Energy Communities has been finalized in 2021 with the Austrian Renewables Development Act (EAG) they main actors and participants - municipalities, SME and private citizens - are clearly defined. These will also be the main stakeholder groups to be addressed with the regional action plan.

5. CHAPTER 3: SWOT analysis of the regional context

PARTICIPATORY SWOT ANALYSIS OF THE REGIONAL CONTEXT IN BRINGING CSSC APPLICATIONS INTO REAL CASES	
INTERNAL FACTORS	
Strengths	Weaknesses
<ul style="list-style-type: none"> • Power Grid stability is very high • Energy supply is very stable and secure • High average of sunshine hours makes PV very feasible • Socio-economic situation allows for substantial private investments into storage and sector coupling technologies 	<ul style="list-style-type: none"> • Many households in rural areas are remote and supplied with weak overhead power transmission lines • There are not many big flexibilities in the power grid • This results in punctual problems for adding more PV plants to the grids in more remote areas (i.e. the grid operator does not allow more PV to be installed)
EXTERNAL FACTORS	
Opportunities	Threats
<ul style="list-style-type: none"> • Potential for CSSC technologies is very high, with high public awareness of the importance of such technologies • The new Austrian “Renewables Development Act” (EAG) provides a legal framework for the increased utilization of renewables and storage technologies • Economic stimuli initiated due to the Corona pandemic are aimed at investments into sustainable technologies and renewable energies • There are regional and national funding programs in place to promote storage technologies 	<ul style="list-style-type: none"> • Economic downswing due to Corona pandemic might delay or stop investments / projects in the region • Funding of RES projects might get directed towards large, centralized project, reducing incentive to installed distributed RES and storage solutions

6.CHAPTER 4: ACTIONS

Action 1	Establishing Renewable Energy Communities in the region
Brief description	Within the Südburgenland region two areas for establishing a REC have been identified (Oberwart and Stegersbach) to be established. Within these RECs renewable energy produced by PV can be shared between participants, thus increasing the use of distributed RES.
Activities/ Implementation steps	<ul style="list-style-type: none"> • Awareness raising and information • Holding community information workshops in the solar.one vicinity • Collect interested citizens, SME and municipal organizations • Establish an association as legal entity for the REC • Establish REC according to Austrian regulations • “Go Live” with REC with all energy market processes between REC and DSO in place via the Austrian eutilities processes
Timeframe	August 2021 to December 2022
Milestones	First REC established (Jan 2022) Second REC established (Jul 2022)
Estimated costs	Minor administrative cost for establishing and registering the legal entity for the REC
Financing sources	Participating citizens, SME and municipal organisations (no public funding required)
Estimated impact/results	By forming Renewable Energy Communities, the involved actors get a legal framework for collaborating, sharing distributed RES generation and starting collaborative / communal investments for the development of further renewable infrastructure (i.e., storage, E-mobility, heat pumps, ...) These REC will form an essential framework for communicating and reaching the respective stakeholders for further actions to be implemented.
Actors involved	Private citizens, regional SME and municipalities

Action 2	Promoting home battery storage systems to REC participants
Brief description	Technical solutions as well as financing / funding plans for the installation of home battery storage systems will be prepared and provided to members of the regional energy communities
Activities/ Implementation steps	<ul style="list-style-type: none"> • Develop an analysis of battery storage capacity needs within the REC • Estimate required investments • Prepare a common funding proposal to the Austrian UFI (Umweltförderung im Inland; Domestic Environmental Funding) • Apply for the respective funding procedure • Invest and install home battery storages (depending on the grant of funding)
Timeframe	January 2022 to October 2022
Milestones	Funding proposal submitted (Apr 2022) Storage systems installed (Oct 2022)
Estimated costs	Estimated costs are 8.000 - 12.000 € per participating households or SME. Currently about 20 participants are considered for a total investment cost of about 200.000€
Financing sources	40% of the investments cost is applied for funding with UFI, the other 60% will be financed by the participating citizens or SME
Estimated impact/results	Additional installed storage capacity will greatly increase self-consumption levels and allow for more regional energy independence as well as considerably lower Co2 footprint of the region
Actors involved	Private citizens, regional SME and municipalities